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Commercial Fertilizers, Commercial Feeds

AND

Agricultural Liming Materials

Results of Tests on Products Sold as Vitamin D Carriers.

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ASSAY OF VITAMIN D SUPPLEMENTS SOLD IN MARYLAND

—Fall 1936—

Table I below contains the results obtained in a recently completed assay of samples of products sold in Maryland as vitamin D supplements. These samples were secured by Inspectors of this Department during August and September, 1936. Each brand tested is registered with this Department as being of definite minimum vitamin D potency. This potency is expressed as the percentage of the product which must be added to the basal rachitic ration in order to provide for normal calcification by the Association of Official Agricultural Chemists' tentative method of assay for anti-rachitic materials. This potency is listed in the table under the heading "Guaranteed Percentage." Each product was assayed at the guaranteed percentage, and the results are shown in the column headed "Result of Test." If a product gave a group ash average percentage of 44% or more at the guaranteed percentage it is reported as "Guarantee Sustained." If the ash percentage was less than 44%, the report is "Guaranteed Not Sustained, Ash Percentage....."

The guaranteed percentage is an expression of minimum guaranteed vitamin D content and is not intended to signify the level of the product to be used in practical feeding. For such use, the recommendations of the manufacturer should be obtained.

Manufacturer	Brand Name	Guaranteed Percentage	Result of Test
The Acton Company Philadelphia, Pennsylvania	Acton Norwegian Cod Liver Oil	½%	Guarantee Sustained
Baugh & Sons Company Philadelphia, Pennsylvania	Norwegian Cod Liver Oil	½%	Guarantee Sustained
F. E. Booth Company San Francisco, California	Sardilene	½%	Guarantee Sustained
California Packing Corporation San Francisco, California	Biotol, Biologically Tested Sardine Oil	⅜%	Guarantee Sustained
G. E. Conkey Company Cleveland, Ohio	Conkeys Y-O	2½%	Guarantee Sustained
Ezl. Dunwoody Company Philadelphia, Pennsylvania	Super X Cod Liver Oil	½%	Guarantee Sustained
The Fox Company Newfield, New Jersey	Fox Quality Cod Liver Oil	½%	Guarantee Sustained
Gunning and Gunning	Cod Liver Oil	1%	Guarantee

Cleveland, Ohio	Conkeys T-O	2½%	Sustained
Ezl. Dunwoody Company Philadelphia, Pennsylvania	Super X Cod Liver Oil	½%	Guarantee Sustained
The Fox Company Newfield, New Jersey	Fox Quality Cod Liver Oil	½%	Guarantee Sustained
Gunning and Gunning New York City, New York	Cod Liver Oil	1%	Guarantee Sustained
Health Products Corporation Newark, New Jersey	Clo-Trate	⅛%	Guarantee Sustained
Chas. L. Huisking & Company New York City, New York	Vitamin Brand Cod Liver Oil	¼%	Guarantee Sustained
King Brothers and Company Philadelphia, Pennsylvania	Kings Xtra Cod Liver Oil	½%	Guarantee Sustained
McKesson & Robbins, Inc. Bridgeport, Connecticut	Midnight Sun Cod Liver Oil	½%	Guarantee Not Sustained Ash Percentage 35.56
National Oil Products Company Harrison, New Jersey	Nopco XX	3/32%	Guarantee Sustained
	Nopco Non-Destearinated Cod Liver Oil	⅜%	Guarantee Sustained
Pratt Food Company Hammond, Indiana	Pratts Cod Liver Oil	½%	Guarantee Sustained
Robert A. Reichard, Inc. Allentown, Pennsylvania	Keystone Brand U.S.P. Poultry Cod Liver Oil	½%	Guarantee Sustained
Sea Board Supply Company Philadelphia, Pennsylvania	Cod Liver Oil	½%	Guarantee Sustained
Silmo Chemical Company Vineland, New Jersey	Silmo XX Cod Liver Oil	⅛%	Guarantee Sustained
	Silmo Poultry D Cod Liver Oil	1%	Guarantee Sustained
Whitmoyer Laboratories Myerstown, Pennsylvania	Whitmoyer Quality Cod Liver Oil	½%	Guarantee Sustained

In Table II are given the results of the two tests of a sample of Fox Cod Liver Oil which was collected by this Department in January, 1936. Our first test of this product conducted during our Spring 1936 assays showed it to be less potent than guaranteed, a pen of chicks fed the oil at ½% giving an ash percentage of 42.37. A portion of this sample was retested at ½% and an ash percentage of 41.66 obtained. The results of the second test clearly substantiate the first assay showing the deficiency of this sample of Fox Cod Liver Oil.

Manufacturer	Brand Name	Guaranteed Percentage	Result of Test
The Fox Company Newfield, New Jersey	Fox Cod Liver Oil	½%	Guarantee Not Sustained First Test— 42.37% Ash Second Test— 41.66% Ash

An increasing number of products which can be classed under the general term "concentrates" are appearing on the market. Generally speaking, these products are specified to be for mixture in varying proportions with other materials to make particular types of mashes or other feeds.

In Table III below are the results of tests with several products of this nature which are being sold in Maryland. These products are purported to furnish sufficient vitamin D in the total ration when used in the proportion recommended by the manufacturer.

This Department considers such products as vitamin D supplements. The results reported here represent the ash content of the tibia of groups of chicks fed the Association of Official Agricultural Chemists' basal ration supplemented with that percentage of the respective material which the manufacturer recommends for use in practical feed mixing. All the products are shown to have produced normal bone ash of more than 44%.

Manufacturer	Brand Name	Guaranteed Percentage	Result of Test
Blatchford Calf Meal Company Waukegan, Illinois	Blatchford's V-D	10%	Above 44%
Hubbard Milling Company Mankato, Minnesota	Hubbards Sunshine Concentrate (With Cod Liver Oil)	20%	Above 44%
Dawe's Products Company Denver, Colorado	Dawe's Vitamelk	10%	Above 44%
Ultra-Life Laboratories, Inc. East St. Louis, Illinois	Ultra-Life	10%	Above 44%